DEPARTMENT OF THE ARMY
WASHINGTON AQUEDUCT
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
5900 MACARTHUR BOULEVARD, N.W.
WASHINGTON, D.C. 20016-2514

June 20, 2011

Office of the General Manager

Mr. Jon Capacasa
Director
Water Protection Division
US EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Request for Modification of Federal Facility Compliance Agreement Timetable Item

Dear Mr. Capacasa:

In accordance with paragraph 50 of the June 12, 2003 Federal Facility Compliance Agreement (FFCA), Docket No. CWA-03-2003-0136DN, between the United States Army Corps of Engineers and the Environmental Protection Agency, I request an extension of the full compliance deadline listed in paragraph 22 of the same agreement as last amended by your letter dated November 30, 2010, from the current deadline of September 30, 2011 to a new one of February 14, 2012.

As we have been reporting to you in the quarterly progress reports required by Section IV (Reporting), the project is progressing and there has been no non-compliance with any of the provisions of the FFCA. The project is fully funded. The previous extensions were granted to overcome initial delays with the EIS and the Record of Decision and then difficulties with the drilled pilings that support the foundation of the residuals processing facility.

This final request for an extension is to overcome two unexpected problems. One is at the Dalecarlia sedimentation basins and the other concerns the dredge systems installed for the Georgetown sedimentation basins and the Dalecarlia Reservoir forebay.

At the Dalecarlia water treatment plant, the residuals collected from the four sedimentation basins will be pumped in a pipe laid under MacArthur Boulevard that connects to a pipe that runs to the residuals processing facility. For the reasons to be explained we don't believe that the basin vacuuming systems can be operational until December 15, 2011.

The reason for this delay is that we had to design and construct an underground pumping station that pumps the residuals from basins 3 and 4 (the large double deck basins). In preparing the support for the excavation for this structure our contractor had to abandon the vibratory sheet piling methodology it had selected because it threatened to damage private homes directly across the city street (Norton Street) from the basins. Designing an alternate excavation technique and safely creating a 30 foot deep hole (to also protect many of our plant process pipes and electrical ducts) was more time consuming than ever expected. That pumping station structure is

scheduled to be complete in late July.

One of the next steps after the pumping station in the construction process is to get the residuals under MacArthur Boulevard (from the west side to the east side) and connect that pipe to the pipes already laid from the east side of MacArthur Boulevard to the residuals processing facility. To do this, we are using the 1925 era penstock – which has been out of service since the early 1940's. Doing a surface excavation and relocation of public and commercial utilities under MacArthur Boulevard would have been unworkable.

We encountered unexpected difficulty in finding the true location of the penstock because it was not where it was shown to be on the construction drawings of the time. We also knew a siphon feature had been placed in the penstock as it passed under MacArthur Boulevard but we didn't know exactly where it was nor did we know the angles that had been incorporated into the otherwise straight pipe to create the siphon. We have now located the appropriate point of entry on the western side and have designed a structure to shore the excavation and to penetrate the 7 foot diameter pipe. We also have now conducted a detailed survey of the angles in the siphon so that the appropriate lengths of 12 inch ball and socket ductile iron pipe could be ordered. This pipe must be made to order. The current date for the pipe delivery is August 22, 2011. The excavation for the entry point for the pipe should be done by that date. Then this pipe has to be assembled inside the penstock. When that is completed it is attached to the pipe from the new pumping station (serving basins #3 and #4) and from the pipe serving basins #1 and #2. At the same time this is going on, electrical feeders that supply power to the collection equipment in basins #3 and #4 will have been installed in the new pumping station and connected to the collection equipment.

For the Dalecarlia basins, the equipment to recover the solids is a vacuum arrangement with lightweight pipes slung in carriages pulled by winches. The basins need to be cleaned before the system can be started since the lightweight pipes can't be dragged through a deep bed of sediment. We also expect that there will be at least one or perhaps two adjustments that will need to be made after we start operating. Either instance would require the basins to be drained to gain access to the vacuum equipment. Given the need to continue with ongoing water production, the basin drainings have to be sequenced. Our best estimate is that by December 15, the vacuum systems will have been tested and we will be in the final production mode at the Dalecarlia sedimentation basins.

When the vacuum system is initially started in later September each basin's system will have been started in a clean basin and it will take some time for a sufficient quantity of residuals to be sent to the residuals processing facility to get a layer of residuals in the thickeners so that there will be something to be pumped to the centrifuges. This material will be the basis for the production tests of the thickeners, the centrifuges and the related equipment in the residuals processing facility.

Turning now to the Georgetown sedimentation basins and the Dalecarlia Reservoir Forebay, the issue of concern is that during testing of the dredge transport system, a cable snapped when the winches improperly pulled against themselves. This was extraordinarily dangerous as the cable whipped through the air and damaged other equipment. That event is

currently being studied and we are confident that the cable and winch system will be reconfigured with necessary safety features. But we cannot predict yet what the fix is. Therefore we cannot estimate the time to design and manufacture, deliver, install and test the modified system. However, because, as indicated below, we will not need to discharge the Georgetown basins in order to bring the dredge transport system online, we believe the precise timing of the fix is irrelevant to meeting the terms and conditions of paragraph 22, which only involve meeting the discharge limitations. To make it easier to start the dredging when it begins, we do plan to do one final round of cleaning of both Georgetown basins in July this year (i.e., 2011) under the terms of the FFCA.

Still, we do not know if the dredge cabling system for Georgetown and the Dalecarlia Reservoir Forebay will be repaired before the piping, pump station and the electrical controls to basins #3 and #4 at Dalecarlia are completed. It doesn't matter which residuals (i.e., Dalecarlia basins or Georgetown basins) get to the residuals processing facility to do acceptance testing on the centrifuges and thickeners and the related mechanical systems. We will move forward as quickly as possible to accept those systems (which are all installed and waiting for residuals to test them).

As noted above, we will discharge both Georgetown sedimentation basins before September 30, 2011 (the current final deadline in the FFCA). For the purposes of this request we are not asking to make additional discharges beyond September 30, 2011 from Georgetown (Outfalls 003 and 004) because the dredges (unlike the vacuums in the Dalecarlia sedimentation basins) can begin operations with residuals in place.

The reason we are asking for extension of the final milestone to February 14, 2012 instead of our December 15, 2011 estimate is that if the winter is very cold and ice builds up in the Dalecarlia sedimentation basins, we may not be able to lower the water levels. The additional weeks before the start of the spring spawning season gives us flexibility to overcome the unknowns of the weather and prevents having to ask for an additional extension.

We thank you for the role you have played in overseeing the analysis, design and construction of these facilities. We also appreciate your understanding and support of our need to have adjustments in the FFCA. We are looking forward to incorporating these facilities and processes into our operating regime.

This letter is being concurrently shared with the resource agencies in order to consult with them and give them an opportunity to address any questions about this request to us.

If you have any questions, I may be reached at 202 764-0031.

Sincerely,

Thomas P. Jacobus
General Manager